



DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Parts 107, 171, and 173

[Docket No. PHMSA-2020-0103 (HM-257A)]

RIN 2137-AF50

Hazardous Materials: Streamlining Requirements for the Approval of Certain Energetic Materials

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: PHMSA proposes to amend the Hazardous Materials Regulations to revise the classification and approval process for certain low-hazard fireworks; to revise classification criteria for small arms cartridges to include tracer ammunition; to include the PHMSA portal as the method to submit applications for all explosives approvals; and to allow for voluntary termination of an explosive approval by the approval holder.

DATES: Comments must be submitted by [INSERT DATE 90 DAYS FROM PUBLICATION IN THE FEDERAL REGISTER]. PHMSA will consider late-filed comments to the extent possible.

ADDRESSES: You may submit comments by identification of the docket number (PHMSA-2020-0103 [HM-257A]) by any of the following methods:

Federal Rulemaking Portal: <https://www.regulations.gov>. Follow the online instructions for submitting comments.

Fax: 1-202-493-2251.

Mail: Docket Management System, U.S. Department of Transportation, Docket Operations, M-30, Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, D.C. 20590-0001.

Hand Delivery: U.S. Department of Transportation, Docket Operations, M-30, Ground Floor, Room W12-140, 1200 New Jersey Avenue, SE, Washington, D.C. 20590-0001 between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

Instructions: Include the agency name and docket number PHMSA-2020-0103 (HM-257A) or RIN 2137-AF50 for this rulemaking at the beginning of your comment. Note that all comments received will be posted without change to <https://www.regulations.gov> including any personal information provided. If sent by mail, comments must be submitted in duplicate. Persons wishing to receive confirmation of receipt of their comments must include a self-addressed stamped postcard.

Docket: For access to the public docket to read background documents or comments received, visit <https://www.regulations.gov> or the DOT Docket Operations Office (*see ADDRESSES*).

Confidential Business Information: Confidential Business Information (CBI) is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA; 5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” Submissions containing CBI should be sent to Eugenio Cardez, U.S. Department of Transportation, 1200 New Jersey Avenue SE, Washington, D.C. 20590-0001. Any commentary PHMSA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

FOR FURTHER INFORMATION CONTACT: Mr. Eugenio Cardez, Transportation Specialist, Standards and Rulemaking Division, Office of Hazardous Materials Safety, 202-366-8553, 1200 New Jersey Avenue, SE, Washington, D.C. 20590.

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I. Background

The pyrotechnic industry is a global logistics supply chain comprised of mostly foreign fireworks manufacturers and domestic importers, retailers, distributors, carriers, and consumers. Fireworks are a Class 1 explosive material in accordance with the Hazardous Materials Regulations (HMR; 49 Code of Federal Regulations (CFR) parts 171-180). Class 1 explosives are divided into six divisions based on their explosion hazard: 1.1, 1.2, 1.3, 1.4, 1.5, and 1.6. PHMSA proposes to amend the classification and approval process of certain low-hazard fireworks of Division 1.4G. As defined in § 173.50 of the HMR, Division 1.4 consists of explosives that present a minor explosion hazard. Division 1.4 explosives have explosive effects

that are largely confined to the package; no projection of fragments of appreciable size or range is to be expected; and an external fire must not cause virtually instantaneous explosion of almost the entire contents of the package. Explosives are assigned compatibility codes used to specify the controls for the transportation, and storage related thereto, of explosives and to prevent an increase in hazard that might result if certain types of explosives were stored or transported together. Explosives assigned a “G” code are not limited to fireworks and may also be defined as pyrotechnic substances or articles containing a pyrotechnic substance, or articles containing both an explosive substance and an illuminating, incendiary, tear-producing or smoke-producing substance.

Subpart C of part 173 details requirements for the classification and packaging of Class 1 explosive materials and specifies that explosives, including fireworks, must be approved and assigned an explosives approval number —i.e., an EX number—by PHMSA, based on actual testing and classification, prior to transportation to, from, and within the United States. Section 173.64 permits Division 1.3G and 1.4G fireworks to be approved without prior examination based on certain conditions, including compliance with the provisions of the 2018 American Pyrotechnic Association (APA) Standards 87-1A, 1B, and 1C, which are incorporated by reference in § 171.7.¹ Further, § 173.65 permits—in lieu of an approval—Division 1.4G consumer fireworks (as defined in § 171.8) to be certified by a DOT-approved Fireworks Certification Agency (FCA). After the FCA reviews the consumer fireworks application and certifies it meets the requirements, the FCA assigns an FC number in place of an EX number for Division 1.4G consumer fireworks.

All fireworks transported to, from, and within the United States must be approved by PHMSA or certified by an FCA. The current approval process requires PHMSA personnel to

¹ The 2018 APA Standards 87-1A, 1B, and 1C were incorporated by reference in the Hazardous Materials: Adoption of Miscellaneous Petitions To Reduce Regulatory Burdens Final Rule. 85 FR 75680 (Nov. 25, 2020). *See* <https://www.federalregister.gov/documents/2020/11/25/2020-23712/hazardous-materials-adoption-of-miscellaneous-petitions-to-reduce-regulatory-burdens>.

conduct a multi-step review of each application, which includes accepting an application, entering application data into a database; reviewing the application for completeness and compliance with the APA standard; drafting the final action letter; conducting the final review; and signing and issuing the final approval. PHMSA estimates its review process takes about two hours per application, for an estimated 425 labor hours annually. PHMSA provides approvals free of charge as a public service to manufacturers. However, manufacturers have the option to use commercial FCAs for Division 1.4 consumer fireworks, which certify products for a fee, and may process approvals faster. See the preliminary regulatory impact analysis (PRIA) in the docket for this rulemaking for additional information.²

A. Low Hazard Fireworks

Low hazard fireworks refer to a group of explosive articles that are not designed to leave ground level, contain no aerial components, and contain less than 100 grams of chemical composition per tube. These devices have a minimal and well-understood hazard as explosives. Specifically, low hazard fireworks can only be manufactured using chemicals from the “Permitted and Restricted Chemical Table for Consumer Fireworks and Novelties,”³ and reports⁴ are restricted to 50 milligrams of report composition. The European community conducted extensive fireworks testing prior to the development of the United Nations (UN) default fireworks table. The devices proposed under this rulemaking for classification as Division 1.4G fireworks are consistent with the UN default table, as well as 30 years of classification experience under the APA standards.

Low hazard fireworks include ground and novelty firework devices, as currently listed in the 2018 APA Standard 87-1A.

² The PRIA is available in the regulatory docket (Docket ID: PHMSA-2020-0103) at www.regulations.gov.

³ <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/2021-09/2018%20APA%2087-1%20A.pdf>

⁴ Report: A concussive effect and flash of light produced by the ignition of a chemical composition.

Ground Devices

The 2018 APA Standard 87-1A defines “ground device” as a device designed to produce its effects at or near ground level. The following 17 individual ground devices are defined as low hazard fireworks and may be approved or certified for transportation in accordance with the HMR provided they meet the requirements for construction, formulation, and packaging: Chaser, Crackling Ball, Crackling Strip, Crackling Tube, Firecracker, Flasher/Strobe, Flitter Sparkler, Fountain Cone, Fountain Cylindrical, Fountain Nitrocellulose, Ground Spinner, Illuminating Torch, Smoke, Snake, Specialty Device, Wheel, and Wire Sparkler or Dipped Stick.

Ground devices meeting the provisions of the 2018 APA Standard 87-1A are classified and described as “UN0336, Fireworks, Division 1.4G.” Currently, ground devices are either approved by PHMSA personnel or certified by an FCA upon completion of a multi-step review of each application. PHMSA proposes streamlining the approval or certification process of these fireworks by allowing self-certification using an online application in the PHMSA portal with an automated process for review and issuance of a certification. This automated process may be used for the low hazard fireworks identified in this rule in lieu of the current process and would no longer require PHMSA or FCA personnel to conduct time-consuming reviews of each application or impose a cost on manufacturers who opt to use a FCA to certify these fireworks. Manufacturers of fireworks that meet the required criteria for the construction, formulation, and packaging of these ground devices—specifically discussed in Section II: Proposed Amendments—would certify compliance with specified conditions and limitations online and receive a certificate with a unique identifier number (i.e., FW number) for each firework type. The online system will provide immediate comparison of the technical information provided against the criteria established for low hazard fireworks. Because of the low hazard associated with these fireworks, and because we maintain oversight through PHMSA’s Quality Assurance

and Quality Control (QA/QC) review program⁵ of applications submitted through the PHMSA portal, PHMSA believes the current safety level for transport of these fireworks will be maintained when using this process for certification of eligible ground device fireworks.

Multi-tube devices, such as cake and combination fireworks devices, are excluded from this rulemaking. PHMSA is not proposing that multi-tube devices be allowed to be self-certified via the PHMSA portal at this time; however, manufacturers will still use the PHMSA portal for submitting an application for the standard explosive approval.

Novelty Devices

In 1995, PHMSA issued “Guidance and Criteria for Fireworks Novelties,” which sought to resolve confusion regarding novelty devices (i.e., novelties) and PHMSA’s explosives regulations. The guidance document was later reissued under the same name in 2005 and 2015, with only editorial changes. The current version⁶ includes five novelties that—when shipped domestically by ground, rail, or vessel—may be transported as not regulated as explosives when manufactured in accordance with the provisions outlined for each type of device as specified in the 2001 APA Standard 87-1. The 2018 APA Standard 87-1A includes two additional novelties that may be excluded from HMR requirements—for a total of seven novelties for consideration for approval or certification for transportation as not subject to further regulation in accordance with proposed changes to the HMR, provided they meet the conditional requirements for construction, formulation, packaging, and transportation mode. The seven novelties are Booby Trap/Pull Apart, Novelty Flitter Sparkler, Party Popper, Novelty Snake, Snapper, Novelty Wire Sparkler or Novelty Dipped Stick, and Novelty Smoke Device. However, when these novelties are prepared for transportation by air, they must be classified and described as “UN3178,

⁵ The PHMSA QA/QC Low Hazard Fireworks Review Program is currently under development while completing development of the electronic process, and when finalized will be similar to the PHMSA Fireworks FCA QA/QC Review Program.

⁶ See “Guidance and Criteria for Fireworks Novelties,” available at: <https://www.phmsa.dot.gov/sites/phmsa.dot.gov/files/docs/approvals-and-permits/hazmat/energetic-materials-approvals/57711/finalguidanceandcriteriaforfireworksnoveltydevices03192015.pdf>.

Flammable solid, inorganic, n.o.s. (novelties)” and shipped in accordance with requirements of the HMR.

A PHMSA approval or FCA certification is not required for novelties manufactured in accordance with the provisions outlined for each type specified in the APA standards when transported domestically by ground, rail, or vessel, but this exception is only applicable within the United States and its territories. PHMSA proposes to authorize the use of the automated self-certification process to enable the manufacturer to receive a certificate for use with international transportation. Manufacturers of novelties meeting the required criteria for the construction, formulation, and packaging of these devices would certify compliance with specified conditions and limitations online and receive a certificate with a unique identifier (defined as an “FW number”) for each firework type, in the same manner proposed for ground devices.

There have been no systemic safety issues or safety concerns involving shipments of novelties that meet the requirements of both the APA standards and PHMSA’s guidance memo. The history of safe shipments helps demonstrate that the proposed amendment will not have an adverse effect on safe transportation of these fireworks. Rather, the proposed changes ++in this NPRM will codify existing guidance to promote increased regulatory clarity and consistency, which will—at a minimum—maintain the current level of safety. Publication of a final rule will supersede previously issued guidance on this matter.

B. Tracer Ammunition

Section 173.56(h) authorizes self-classification of certain types of small arms cartridges into Division 1.4S, provided certain conditions are met. Explosives assigned an “S” code are defined as substances or articles so packed or designed that any hazardous effects arising from accidental functioning are limited to the extent that they do not significantly hinder or prohibit firefighting or other emergency response efforts in the immediate vicinity of the package. In particular, § 173.56(h)(3) specifies a condition that the ammunition has an inert projectile or is blank. However, the current criteria is silent on whether this ammunition includes tracer

ammunition. Tracer ammunition utilizes a small amount of a pyrotechnic charges at the base or as coating of the projectile to make the trajectory of the projectile visible to the naked eye. As such, considering the § 173.56(h)(3) condition, affected entities have expressed uncertainty whether tracer ammunition is considered inert and, therefore, qualifies for the exception in paragraph (h). PHMSA considers the small amount of pyrotechnic charge as a negligible quantity of explosive material compared to the quantity of propelling charge contained within the cartridge itself, and this small amount of pyrotechnic charge at the base of or coated on the projectile does not increase the hazard in a bonfire test nor make unintentional initiation any more likely. In this rulemaking, PHMSA is considering allowing tracer ammunition to be eligible for self-classification as a Division 1.4S material provided all criteria outlined in § 173.56(h) are met.

C. Changes to the Approval Process.

Currently, as part of the Hazardous Materials Program Procedures, in 49 CFR 107.705, the approval process for submitting applications includes mail, e-mail, or fax. Although not explicitly stated, PHMSA also accepts applications for approvals submitted through the PHMSA portal.⁷ PHMSA proposes to amend 49 CFR 107.705 to add the PHMSA portal to the current options to submit all types of approval applications, and to specify that use of the PHMSA portal will be the only option to submit explosives approval applications and to self-certify manufacture of low hazard fireworks. To be clear, PHMSA proposes that from the effective date of a published final rule, persons will no longer be able to submit explosives approval applications by mail, e-mail, or fax and must use the PHMSA portal. PHMSA believes efficiencies will be gained by moving to an electronic only service. The PHMSA portal provides the public online access to PHMSA services, creating a single source for Hazardous Materials and Pipeline Safety

⁷ The PHMSA portal is available online at https://portal.phmsa.dot.gov/phmsapub/faces/PHMSAHome;PHMSAPUB_SESSIONID=aHhG4dlf1U0E2nq599uvQ-RWl3nzKlgWsLSOcwxPNzx1te7cDD3R!883673165?req=-3710157719365173927&attempt=0&_afLoop=1686827584595767&_afWindowMode=0&_afWindowId=null&_adf.ctrl-state=ns6jrdepu_1.

applications and data. Persons need only to register to create an account to access and use the portal. Further discussion is provided in “Section II.C.”

Furthermore, 49 CFR 107.713 describes the process for the modification, suspension, and termination of approvals. As currently prescribed in 49 CFR 107.713(c), before an approval is modified, suspended, or terminated, PHMSA must provide approval holders an opportunity to show cause why the proposed action should not be taken. PHMSA proposes to add a new paragraph (e) to allow approval holders to request termination of approvals, and to revise paragraph (c) to clarify that when an approval holder voluntarily seeks to terminate an approval, PHMSA is not required to issue a show cause letter.

II. Incorporation by Reference Discussion Under 1 CFR Part 51

According to the Office of Management and Budget (OMB), Circular A-119, “*Federal Participation in the Development and Use of Voluntary Consensus Standards and in Conformity Assessment Activities*,” government agencies must use voluntary consensus standards wherever practical in the development of regulations.

PHMSA currently incorporates by reference into the HMR all or parts of numerous standards and specifications developed and published by standard development organizations (SDO). In general, SDOs update and revise their published standards every two to five years to reflect modern technology and best technical practices. The National Technology Transfer and Advancement Act of 1995 (NTTAA; Pub. L. 104-113) directs Federal agencies to use standards developed by voluntary consensus standards bodies in lieu of government-written standards whenever possible. Voluntary consensus standards bodies develop, establish, or coordinate technical standards using agreed-upon procedures. OMB issued Circular A-119 to implement section 12(d) of the NTTAA relative to the utilization of consensus technical standards by Federal agencies. This circular provides guidance for agencies participating in voluntary consensus standards bodies and describes procedures for satisfying the reporting requirements in the NTTAA. Accordingly, PHMSA is responsible for determining which standards currently

referenced in the HMR should be updated, revised, or removed, and which standards should be added to the HMR. Revisions to materials incorporated by reference in the HMR are handled via the rulemaking process, which allows for the public and regulated entities to provide input. During the rulemaking process, PHMSA must also obtain approval from the Office of the Federal Register to incorporate by reference any new materials. The Office of the Federal Register issued a rulemaking⁸ that revised 1 CFR 51.5 to require that an agency detail in the preamble of an NPRM the ways the materials it proposes to incorporate by reference are reasonably available to interested parties, or how the agency worked to make those materials reasonably available to interested parties.

The following standards appear in the regulatory text of this NPRM and have already been approved for the locations in which they appear: (1) APA 87-1A: Standard for the Construction, Classification, Approval and Transportation of Consumer Fireworks; (2) APA 87-1B: Standard for the Construction, Classification, Approval, and Transportation of Display Fireworks; and (3) APA 87-1C: Standard for the Construction, Classification, Approval, and Transportation of Entertainment Industry and Technical Pyrotechnics. No changes to these standards are proposed in this NPRM.

III. Proposed Amendments

To streamline procedural requirements for fireworks manufacturers and shippers, PHMSA proposes changes to the regulations relating to PHMSA's explosives approval program specific to fireworks. PHMSA also proposes changes to the HMR to address classification and packaging inconsistencies for tracer ammunition. PHMSA will continue to use the current approval process for Division 1.4G consumer fireworks in accordance with requirements specified in §§ 173.56(b), (f), or (i), and 173.65. However, instead of the current approval process, PHMSA proposes to permit manufacturers to self-certify classification of certain ground and novelty device fireworks using the PHMSA portal, as discussed previously and further

⁸ 79 FR 66278 (Nov. 7, 2014).

below. Furthermore, PHMSA proposes to revise the self-classification of inert projectile cartridges in § 173.56(h) to include tracer ammunition; amend 49 CFR 107.705 to require use of the PHMSA portal as the only submittal option for explosives approval applications; and amend 49 CFR 107.713 to clarify that an approval holder may voluntarily terminate an approval and that a show cause letter from PHMSA is unnecessary when approval holders request to terminate approvals voluntarily.

In the PRIA supporting this rulemaking, PHMSA determined that the aggregate benefits of the amendments proposed justify their aggregate costs. If adopted in a final rule, the amendments proposed herein are expected to reduce the paperwork burden on the regulated community and PHMSA personnel since fewer paper-based explosives approval applications will be submitted and processed. The overall net benefits include a cost savings of 425 labor hours annually. See the PRIA for additional information. These cost savings will not have a material effect on the safety impact of PHMSA's explosives approval program.

A. *Establishing Exceptions for Ground and Novelty Device Fireworks*

PHMSA proposes to revise § 173.64 to outline the exceptions for ground and novelty device fireworks. Specifically, for certain low hazard fireworks of these types, the section would authorize exception from the standard explosive device approval process for classification of Division 1.4G fireworks. These exceptions would be implemented by establishing an automated process within the PHMSA portal for self-certification, review of the information provided, and issuance of a certificate with a unique identification (i.e., FW number). This process may be used for the ground and novelty devices identified in this rulemaking in lieu of the current explosive approval process. PHMSA personnel would no longer be required to conduct a time-consuming review of each application. The automated review process will require the same information as currently required by the HMR. However, the diagram of the device and chemical formulation sheets will not require firsthand review by PHMSA personnel when compliance is certified by the applicant. PHMSA believes this proposed change is consistent with our Agency mission to

protect the health and safety of the public and the environment, and consistent with Executive Order 12866⁹ that in part calls for agencies to examine existing regulations and identify and assess available alternatives to direct regulation. In this case, the current regulations to ensure the safe transport of explosives require explosives—such as fireworks—to be examined, classed, and approved by PHMSA; and further that certain fireworks manufactured according to APA 87-1A may be certified for transportation by a DOT-approved FCA instead. PHMSA believes that upon examination of the existing regulation and in consideration of the low safety hazard associated with certain ground and novelty devices, this proposal to streamline the process authorizing their manufacture and transport by self-certification benefits the public. PHMSA proposes that self-certification will introduce efficiencies and maintain the safety of transporting these fireworks under the HMR. To correspond to the changes proposed in this NPRM, PHMSA proposes to add a definition for “low hazard firework” to § 173.59.

Ground Devices

PHMSA proposes that ground device fireworks certified using the PHMSA portal as conforming to the construction, formulation, and packaging requirements in revised § 173.64, will be authorized for transport as “UN0336, Fireworks, 1.4G.” Seventeen ground devices will be eligible for this new certification process: Chaser, Crackling Ball, Crackling Strip, Crackling Tube, Firecracker, Flasher/Strobe, Flitter Sparkler, Fountain Cone, Fountain Cylindrical, Fountain Nitrocellulose, Ground Spinner, Illuminating Torch, Smoke, Snake, Specialty Device, Wheel, and Wire Sparkler or Dipped Stick. Multi-tube devices,¹⁰ such as cake and combination devices, are excluded from eligibility for certification using the automated process.

PHMSA proposes specific criteria for manufacturing (construction and formulation) and packaging of these ground devices. The fireworks would be subject to both general and specific

⁹ 58 FR 51735 (Oct. 4, 1993).

¹⁰ Multi-tube devices are devices with more than one tube that contains fireworks (i.e., pyrotechnic effects).

requirements as presented below in the table of Proposed Criteria for Ground Devices. The proposed general requirements for ground devices are as follows:

- Devices must use chemicals in conformance with the permitted and restricted chemical table in the edition of APA Standard 87-1A, Appendix 1, incorporated by reference in § 173.64. The 2018 edition of the standard is currently incorporated by reference. Note that all chemical specifications in the table are maximum limits.
- All reports are limited to 50 mg (0.050 g) of composition per report.
- All devices are initiated by a safety fuse with the exception of firecrackers, flitter sparklers, nitrocellulose fountains, snakes, wire sparklers, or dipped sticks.
- All devices must be finished (they cannot be a component intended to be used in another device).
- All devices must successfully pass a thermal stability test as specified in § 173.64(a)(2).
- Each device must be marked with the alphanumeric PHMSA-assigned certification number (“FW number”) consisting of the letters FW, followed by the year and month issued, and a sequential number based on order of issuance that year (e.g., FWYYYYMMSSSS). If the device is too small, the package that contains the device must display the certification number.

The specific requirements for each of the 17 eligible ground device types are as follows:

Proposed Criteria for Ground Devices			
Device	Definition	Specification¹¹	Special Conditions
Chaser	Consists of a paper or cardboard tube, which vents out the fuse end of the tube.	20 total grams of chemical composition, with multiple reports permitted.	None
Crackling Ball	Consists of a spherical ball that contains small granules of chemical composition that upon ignition produce sparks and/or a crackling effect.	20 total grams of chemical composition, with no reports permitted.	Inner packaging cannot exceed 72 grams of composition.

¹¹ This column describes the chemical composition weight limits per tube and whether reports are permitted.

Crackling Strip	Consists of small granules of chemical composition adhered to and encased in a paper or cardboard wrapping that upon ignition produce sparks and/or a crackling effect.	20 total grams of chemical composition, with no reports permitted.	Inner packaging cannot exceed 72 grams of composition.
Crackling Tube	Consists of a tube that contains small granules of chemical composition that upon ignition produce sparks and/or a crackling effect.	20 total grams of chemical composition, with no reports permitted.	Inner packaging cannot exceed 72 grams of composition.
Firecracker	Consists of a small paper-wrapped or cardboard tube that produces a single report.	50 milligrams of chemical composition per firecracker.	Multiple firecrackers can be fused together to form a string. There is no limit on number of firecrackers in a string.
Flasher / Strobe	Consists of a paper-wrapped or cardboard tube that produces a crackling/flashing/strobing light effect.	5 total grams of chemical composition, with no reports permitted.	Inner packaging cannot exceed 60 grams of composition.
Flitter Sparkler	Consists of a paper or cardboard tube attached to a stick or wire. Upon ignition, the device produces a shower of sparks, a colored flame and/or a crackling effect.	25 total grams of chemical composition, with no reports permitted. Formulations containing chlorates are limited to 4 grams with no more than 15 percent of the formulations being chlorates.	None
Fountain (Cone)	Consists of a conical paper or cardboard container that upon ignition produces a shower consisting of any combination of colored sparks, color flame, crackle, smoke, whistle and/or micro star effects.	50 total grams of chemical composition, with no reports permitted.	None
Fountain (Cylindrical)	Consists of a paper or cardboard tube that upon ignition produces a shower consisting of any combination of colored sparks, color flame, crackle, smoke, and whistle or micro star effects.	100 total grams of chemical composition, with no reports permitted.	None
Fountain (Nitrocellulose)	Consists of a paper or cardboard cone or tube device that produces a shower of small sparks, color, and flame as its primary effect using nitrocellulose as the major chemical component.	15 total grams of chemical composition, with no reports permitted.	None
Ground Spinner	Consists of a paper or cardboard tube that upon ignition emits a shower of colored sparks that vents out of an orifice, causing the device to spin rapidly on the ground.	20 total grams of chemical composition, with reports permitted.	Multiple ground spinners can be fused together to form a string. Strings are limited to 20 grams of total composition.
Illuminating Torch	Consists of a paper or cardboard tube that upon ignition, emits a colored flame with or without crackles or sparks	100 total grams of chemical composition, with no reports permitted.	None

Smoke	Consists of a paper or cardboard tube that upon ignition, emits smoke as the primary effect	100 total grams of chemical composition. All mixtures containing a chlorate must contain an equal amount or greater amount of a carbonate or bicarbonate.	Multiple smoke devices can be fused together to form a string. Strings are limited to 100 grams of total composition.
Snake	Consists of pressed pellet of pyrotechnic composition that upon ignition, produces a snake-like ash that expands in length as the composition is consumed.	20 total grams of chemical composition, with no reports. Only formulations of nitrated asphalt, asphaltum, bitumen, pitch, and/or tar with an oxidizer (with or without a binder) are permitted.	None
Specialty Device	Consists of a paper or cardboard tube(s), e.g., in the shape of an animal or a small vehicle, that produces multiple effects.	20 total grams of chemical composition, with reports permitted.	No tube can contain more than 2 grams of composition; tubes cannot contain aerial components or internal shells.
Wheel	Consists of a paper or cardboard tube placed on the ground or attached to a post, by means of a nail, spike, or string. Upon ignition, the wheel rotates producing a shower of sparks, color, crackling, flame, or whistle effects.	200 total grams of chemical composition, with no reports. No tube can contain more than 60 total grams of composition, which includes a 20 gram propellant limit per tube. Tubes cannot contain aerial components. Handles are not permitted.	None.
Wire Sparkler or Dipped Stick	Consists of a metal wire or wood dowel coated with a chemical composition. Upon ignition, the device produces a shower of sparks, a colored flame, and/or a crackling effect.	100 total grams of chemical composition, with no reports permitted. Formulations containing chlorates are limited to four grams with no more than 15 percent of the formulations being chlorates.	Inner packaging cannot exceed 120 grams of composition.

Currently, manufacturers may submit low hazard fireworks approvals through the PHMSA portal, e-mail, or mail, although all applications in the past several years have been through the PHMSA portal. A manufacturer follows a multi-step process to receive a certificate using PHMSA's automated process for review of low hazard fireworks. First, the applicant must register with PHMSA to create an account to use the PHMSA portal and provide the following contact information: company name, contact person, title, address, phone, and e-mail address;

manufacturing location; and U.S. agent (if applicable), address, phone, and e-mail Address. A unique profile is created for each applicant based on their e-mail address, which allows repeated access. If already registered with the PHMSA portal, persons must ensure all necessary information is provided to allow for self-certification. Applicants are required to create complex passwords in accordance with DOT's password requirements.

Then, the applicant must provide specific information about a device and certify the construction, chemical composition, and packaging are in accordance with the HMR. This step requires the applicant to respond to the following questions:

- What is the name and/or product code of the device? (Must be unique.)
- What is the category of the ground device? (There will be a drop down menu with the 17 authorized ground devices.)
- What is the maximum weight in grams of chemical composition in the device?
- Does the device contain a report? (List how many reports.)
- What is the maximum weight in milligrams of any single report in the device?
- What is the total report weight in milligrams in the device?
- Did the device pass a thermal stability test?
- Does the device comply with the Permitted and Restricted Chemicals Table found in the APA Standard 87-1A, Appendix 1, currently incorporated by reference in § 173.64?
- Does the device use a safety fuse for ignition?
- Does the device meet one of the descriptions listed in § 173.64?
- Do you certify the device will be manufactured and transported in accordance with all the statements you attested to above?

Finally, the chemical composition and diagram of the ground device must be entered into and uploaded to the PHMSA portal. A certificate will be issued for each device following the successful completion of the process. The certificate will contain the unique alphanumeric certification number described above.

Novelty Devices

Similarly, PHMSA proposes that novelty devices (i.e., novelties) certified using the PHMSA portal as conforming to the construction, formulation, and packaging requirements in revised § 173.64 will be authorized for transport and not subject to further regulation except for air transport. Although these novelty devices are considered Division 1.4 fireworks, consistent with the guidance discussed in Section I.A and as a condition for self-certification, novelty devices will be classed for transport as “UN3178, Flammable solid, inorganic, n.o.s. (Novelties), 4.1, PG II,” when transported internationally or by air. Seven novelties will be eligible for this new certification process: Booby Trap/Pull Apart, Novelty Flitter Sparkler, Party Popper, Novelty Snake, Snapper, Novelty Wire Sparkler or Novelty Dipped Stick, and Novelty Smoke Device. Therefore, manufacturers may receive a certification for international transportation when it is required. Consistent with the 2015 guidance document, PHMSA considers certain novelties—identified in this NPRM as excepted from further regulation—as explosives under the HMR, subject to certain transportation conditions. However, PHMSA acknowledges that this exception is unique to the United States and complicates transportation of these fireworks into or out of the United States. Therefore, to facilitate international transportation of novelties, PHMSA proposes to issue a unique identifier number (FW number) as part of the automated self-certification process. This process facilitates the certification process and movement of novelty devices outside of the United States where they are classified the same way but not offered the same exceptions.

Novelties must comply with both the general and specific requirements for manufacture and packaging as provided in the table of Proposed Criteria for Novelties. The proposed general requirements for novelty devices are as follows:

- Devices that do not list specific chemical restrictions must use chemicals in conformance with the permitted and restricted chemical table in the APA Standard 87-1A, Appendix 1, incorporated by reference in § 173.64. The 2018 edition is currently

incorporated by reference. Note that all chemical specifications in the table are maximum limits.

- No reports are permitted in novelties.
- Smoke devices must be initiated by a fuse.
- Devices must be finished and packaged in the inner packagings.
- All novelties must successfully pass a thermal stability test specified in § 173.64(a)(2).
- Each device must be marked with the alphanumeric PHMSA-assigned certification number (FW number), followed by the year and month issued, and a sequential number based on order of issuance that year (e.g., FWYYYYMMSSSS). If the device is too small, the package that contains the device must display the certification number.

The specific requirements for each of the seven novelty types is as follows:

Proposed Criteria for Novelties			
Novelty	Definition	Specifications	Special Conditions
Booby Trap/Pull Apart	Device that is actuated by means of friction. Pulling a string or strings apart activates the device, producing a noise effect.	0.016 total grams of chemical composition, which is limited to barium, potassium, and/or sodium chlorate with red phosphorus.	Inner packages must not contain more than 12 devices.
Novelty Flitter Sparkler	Consists of a paper or cardboard tube attached to a stick or wire. Upon ignition, the device produces a shower of sparks, a colored flame, and/or a crackling effect.	5 total grams of chemical composition, with no reports permitted. Formulations containing chlorates are limited to 4 grams with no more than 15 percent of the formulation being chlorates.	Inner packages must not contain more than 8 devices, and an ignition fuse is permitted.
Party Poppers	Device that is actuated by means of friction. Pulling a string or trigger activates the device, producing a noise effect and releasing paper streamers or confetti. Common examples resemble champagne bottles and toy pistols.	0.016 total grams of chemical composition, which is limited to barium, potassium, and/or sodium chlorate with red phosphorus.	Inner packages must not contain more than 72 devices.
Novelty Snakes and Glow-Worms	Consists of pressed pellet of pyrotechnic composition that upon ignition, produce a snake-like ash that expands in length as the composition is consumed.	2 total grams of chemical composition. Only formulations of nitrated asphalt, asphaltum, bitumen, pitch, and/or tar with an oxidizer (with or without a binder) are permitted.	Inner packaging must not contain more than 25 devices.
Snappers	Consists of small, paper-wrapped items. When dropped, the device activates, producing a noise effect.	0.001 total grams of silver fulminate coated on small bits of sand or gravel.	Inner packages must not contain more than 50 devices with sawdust or other impact absorbing materials.

Proposed Criteria for Novelties			
Novelty	Definition	Specifications	Special Conditions
Novelty Wire Sparkler or Novelty Dipped Stick	Consists of a metal wire or wood dowel coated with a chemical composition. Upon ignition, the device produces a shower of sparks, a colored flame, and/or a crackling effect.	25 total grams of chemical composition, with no reports permitted. Formulations containing perchlorates are limited to 5 grams. Formulations containing chlorates are limited to 4 grams with no more than 15 percent of the formulations being chlorates.	Inner packages must not contain more than 8 devices.
Novelty Smoke Device	Consists of a paper or cardboard tube that upon ignition, emits smoke as the only effect.	5 total grams of chemical composition, with no reports permitted. All mixtures containing a chlorate must contain an equal amount or greater amount of a carbonate or bicarbonate (e.g. calcium carbonate, sodium bicarbonate).	Inner packages must not contain more than 72 devices.

Novelties must be in inner packagings that must be further packed in strong outer packagings. The packages must conform to the requirements of § 173.24. The maximum gross weight of a completed package may not exceed 30 kilograms (66 pounds). Additionally, each outer package, and an overpack if used, must be plainly marked with “NOVELTIES, IN CONFORMANCE WITH § 173.64, NOT REGULATED, EXCEPT WHEN TRANSPORTED BY AIR.” When novelties are transported by air, they must be classed and described as “UN3178, Flammable solid, inorganic, n.o.s. (Novelties), 4.1, PG II,” and packaged for transport accordingly.

Similar to ground devices, an applicant will follow a multi-step process to self-certify using PHMSA’s automated process for review of low hazard fireworks. First, the applicant must register with PHMSA to create an account for use of the PHMSA portal and provide the following contact information: company name, contact person, title, address, phone, and e-mail address; manufacturing location; and U.S. agent (if applicable), address, phone, and e-mail address. A unique profile is created for each applicant based on their e-mail address, which allows repeated access. If already registered with the PHMSA portal, persons must ensure all

necessary information is provided to allow self-certification. Applicants are required to create complex passwords in accordance with DOT's password requirements.

Then, the applicant must provide the specific information about a novelty and certify that the construction, chemical composition, and packaging are in accordance with the HMR. This step requires the applicant to respond to the following questions:

- What is the name and/or product code of the device? (Must be unique.)
- What is the category of the novelty? (There will be a drop-down menu with the seven authorized novelties.)
- What is the maximum weight in grams of chemical composition in the device?
- Did the device pass the thermal stability test described in 49 CFR 173.64(a)(2)?
- Does the device comply with the Permitted and Restricted Chemicals Table found in the APA Standard 87-1A, Appendix 1, currently incorporated by reference in § 173.64?
- Does the novelty comply with the specific restrictions listed in the Table of Authorized Novelty Devices and Specifications?
- Does the device use a safety fuse for ignition?
- Does the novelty meet a device description listed in § 173.64?
- Do you certify the device will be manufactured and transported in accordance with all the statements attested to above?

Finally, the chemical composition and diagram must be entered into and uploaded to the PHMSA portal. A certificate will then be issued for each novelty following the successful completion of the process. The certificate will contain the unique alphanumeric certification number described above. The certificate will indicate the description and classification of the device as “UN3178, Flammable solid, inorganic, n.o.s. (Novelties), 4.1, PG II” for international transportation and domestic air transportation, and that it is not regulated as a Class 1 explosive when transported domestically by vessel, highway, or rail.

Fireworks Identification Scheme

As a baseline, fireworks must be approved and assigned an explosives approval number by PHMSA (EX number) based on actual testing and classification prior to transportation to, from, and within the United States. However, § 173.64 permits Division 1.3G and 1.4G fireworks to be approved without prior examination based on certain conditions, including compliance with the provisions of the 2018 APA Standards 87-1A, 1B, and 1C, which are incorporated by reference in § 171.7. Further, § 173.65 permits—in lieu of an approval—Division 1.4G consumer fireworks (as defined in § 171.8) to be certified by a DOT-approved FCA. After the FCA reviews the consumer fireworks application and certifies it meets the requirements, the FCA assigns an FC number.

However, in this NPRM, PHMSA is proposing to streamline the process for approval or certification of low hazard fireworks by allowing self-certification using an online application in the PHMSA portal with an automated process for review and issuance of a certification. This automated process may be used for the low hazard fireworks identified in this rulemaking in lieu of the current process and would no longer require PHMSA or FCA personnel to conduct time-consuming reviews of each application or impose a cost on manufacturers who opt to use an FCA to certify these fireworks. Manufacturers of fireworks that meet the required criteria for the construction, formulation, and packaging of these low hazard fireworks—specifically discussed in Section II. Proposed Amendments—would certify compliance with specified conditions and limitations online and receive a certificate with a unique identifier number (FW number) for each firework type. The FW number will identify a low hazard firework that has been certified through the newly proposed automated approval process as specified § 173.64. An example of an FW number would be “FW2023100001” consisting of the letters FW, followed by the year and month issued, and a sequential number based on order of issuance that year.

Given the long history and wide recognition of the EX and FC numbering scheme, PHMSA seeks specific comments on the supply chain implications, the economic impact and safety concerns associated with the proposed FW numbering system, as well as comments on

how to implement the changes if they are adopted. For example, will the use of different alpha designators (i.e., EX, FC and FW) pose complications or confusion within the transportation system? If so, please provide a suggested alternative to FW.

B. Authorizing the Self-Classification of Tracer Ammunition

Section 173.56(h) authorizes self-classification of certain types of small arms cartridges into Division 1.4S, provided certain conditions are met. In particular, § 173.56(h)(3) authorizes ammunition with inert projectile or blank ammunition. Tracer ammunition utilizes a small amount of pyrotechnic composition to provide visible light upon exit from a gun barrel. Due to the presence of the pyrotechnic composition, it is unclear whether tracer ammunition would qualify as an “inert” projectile. However, there is a negligible quantity of pyrotechnic composition in tracer ammunition compared to the quantities of pyrotechnic material contained within the projectile itself, and its presence neither increases the hazard in a bonfire test nor makes unintentional initiation any more likely.

The difference in hazard between inert projectile cartridges and the same cartridges with a small amount of pyrotechnic composition is negligible. Furthermore, there are no additional concerns related to tracer ammunition that justify exclusion from the self-classification provision of § 173.56(h)(3). Therefore, PHMSA proposes to amend § 173.56(h)(3) to also authorize self-classification of tracer ammunition that meets all other criteria outlined in § 173.56(h)(3).

C. Amending the Approvals Process

PHMSA currently provides several options for submittal of applications for approvals including mail, e-mail, fax, and the PHMSA portal, although this latter method is not codified as an option. As such, PHMSA proposes to amend 49 CFR 107.705 to include the PHMSA portal as a submittal option for all approvals. Furthermore, PHMSA proposes to make the PHMSA portal the only method for submittal and acceptance of explosives approval applications, and to remove current options to submit those applications via mail, e-mail, or fax. Transitioning to an all-electronic system will improve efficiency. Delays often occur when PHMSA personnel must

transcribe application information into the portal database due to incomplete data, inability to read handwritten materials, and so forth. Where missing data or uncertainties are discovered, PHMSA personnel must follow up with the applicant or otherwise reject an application, which causes further delays. Electronic submissions will improve efficiency for the applicant on the front end (data entry) and for PHMSA on the back end (review and issuance of approval). The PHMSA portal provides online access to PHMSA services, creating a single source for all Hazardous Materials explosives applications and data. Persons need only to register to create an account and access the portal.

Finally, PHMSA proposes to add a new paragraph 49 CFR 107.705(e) to allow approval holders to request termination of approvals, and to amend 49 CFR 107.713(c) to clarify that when an approval holder voluntarily requests termination, PHMSA is not required to issue a show cause letter.

IV. Section-by-Section Review

The following is a section-by-section review of the proposed amendments to the HMR.

Part 107

Section 107.705

Section 107.705 prescribes the requirements for submitting registrations, reports, and applications for approval. PHMSA proposes revising paragraph (a)(1) to specify the PHMSA portal may also be used to file all approval applications with PHMSA and is the only authorized method for submitting explosives approval applications, and proposes removing options to submit those explosives applications via mail, e-mail, or fax for all explosives approvals.

Section 107.713

Section 107.713 prescribes procedures for the issuance, modification, and termination of approvals required by the HMR. PHMSA proposes to revise 49 CFR 107.713(c) introductory text to indicate a PHMSA show cause letter is not necessary for voluntary termination of an approval; and add a new paragraph (e) to clarify approval holders may voluntarily request

termination of an approval. PHMSA will then issue a termination letter, rather than a show cause letter.

Part 171

Section 171.8

Section 171.8 provides definitions and abbreviations. PHMSA proposes to define the term “FW number” as a number preceded by the prefix “FW,” assigned by PHMSA to a Division 1.4G Consumer firework device that has been certified under the provisions of § 173.64.

Part 173

Section 173.56

Section 173.56 prescribes the procedures for classification and approval of new explosives. Small arms cartridges meeting the criteria in paragraph (h) may be self-classified as Division 1.4S by the manufacturer. PHMSA proposes to modify § 173.56(h)(3) to provide clarity that tracer ammunition with inert projectiles is also eligible for self-classification as a Division 1.4S material provided all other criteria outlined in § 173.56(h) are met. This proposal will maintain the current level of safety with the HMR by ensuring proper understanding of what types of explosives may be classified or self-classified.

Section 173.59

Section 173.59 provides informational descriptions of terms for explosives. PHMSA is adding a separate term and description for “low hazard fireworks.” This proposal will maintain the current level of safety with the HMR by ensuring proper understanding of what explosives may qualify for the low hazard fireworks exceptions.

Section 173.64

Section 173.64 prescribes classification and approval exceptions from the standard explosives approval process for Division 1.3 and 1.4 fireworks. PHMSA proposes to revise § 173.64 to include further exceptions for low hazard consumer fireworks that qualify for self-

certification. Specifically, paragraph (b) will outline criteria for self-certification of certain ground and novelty devices as Division 1.4 fireworks. Seven novelties will be eligible for self-certification and exception from the HMR, and 17 ground devices will be eligible for self-certification and classification as Division 1.4G fireworks. PHMSA also proposes to make some editorial changes to paragraph (a) consistent with revision to paragraph (b), such as adding a title to paragraph (a) and clarifying further the reference to § 173.65 for certification of Division 1.4G consumer fireworks by an FCA. This proposal will maintain the current level of safety with the HMR by ensuring proper understanding of which ground and novelty devices may qualify for this exception.

V. Regulatory Analyses and Notices

A. Statutory/Legal Authority

This NPRM is published under the authority of Federal Hazardous Materials Transportation Act (HMTA; 49 U.S.C. 5101–5127). Section 5103(b) of the HMTA authorizes the Secretary of Transportation to prescribe regulations for the safe transportation of hazardous materials (HAZMAT) in intrastate, interstate, and foreign commerce. The Secretary has delegated the authority granted in the HMTA to the PHMSA Administrator at 49 CFR 1.97(b).

B. Executive Orders 12866 and 14094; DOT Regulatory Policies and Procedures

Executive Order 12866 (“Regulatory Planning and Review”), as amended by Executive Order 14094 (“Modernizing Regulatory Review”¹²), requires agencies to regulate in the “most cost-effective manner,” to make a “reasoned determination that the benefits of the intended regulation justify its costs,” and to develop regulations that “impose the least burden on society.” Similarly, DOT Order 2100.6A (“Policies and Procedures for Rulemakings”) requires PHMSA rulemaking actions include “an assessment of the potential benefits, costs, and other important impacts of the regulatory action,” and (to the extent practicable) the benefits, costs, and any significant distributional impacts, including any environmental impacts.

¹² 88 FR 21879 (Apr. 11, 2023).

Executive Order 12866 and DOT Order 2100.6A require PHMSA submit “significant regulatory actions” to the Office of Management and Budget (OMB) for review. This rulemaking is not considered a significant regulatory action under section 3(f) of Executive Order 12866 (as amended by Executive Order 14094) and therefore, was not formally reviewed by OMB. This rulemaking is also not considered a significant rule under DOT Order 2100.6A.

The following is a brief summary of costs, savings, and net benefits of some of the amendments proposed in this notice. PHMSA has developed a more detailed analysis of these costs and benefits in the PRIA, a copy of which has been placed in the docket. PHMSA seeks public comment on its proposed revisions to the HMR, and the preliminary cost and benefit analyses in the PRIA.

PHMSA estimates the costs associated with permitting self-certification of low-hazard fireworks are minimal. The actual standards required by the HMR for low-hazard fireworks are not affected by this rule change, merely allowing manufacturers to self-certify that the products meet those standards. PHMSA estimates the self-certifying application process for manufacturers will not add any additional time burdens as the approval information required for an approval will not be affected. PHMSA estimates approvals handled by PHMSA take approximately two hours per application. Of that time 30 minutes are required for data entry, 60 minutes for managerial review, and another 30 minutes for signature review and approval. Allowing self-classification, therefore, would save PHMSA 425 labor hours annually.

PHMSA emphasizes the proposed amendment for tracer ammunition is merely a formal codification and adoption of a policy in place since 2002. The proposed change would make the policy’s definition into a formal regulation. Considering the long-standing nature of the 2002 policy, there would be minimal burdens to formally adopting the policy into the HMR.

C. Executive Order 13132

PHMSA analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13132 (Federalism)¹³ and the Presidential Memorandum (Preemption).¹⁴ Executive Order 13132 requires agencies to assure meaningful and timely input by state and local officials in developing regulatory policies that may have “substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.”

The proposed rule would not have substantial direct effects on the States, the relationship between the national government and the States, or the distribution of power and responsibilities among the various levels of government. The HMTA contains an express preemption provision at 49 U.S.C. 5125(a) that preempts State, local, and Tribal requirements if: (1) compliance with such requirement makes compliance with the DOT regulations issued under the authority of the HMTA not possible; or (2) compliance with such requirement is an obstacle to carrying out a regulation prescribed under the authority of the HMTA. The HMTA also contains an express preemption provision at 49 U.S.C. 5125(b) that preempts State, local, and Tribal requirements on certain covered subjects, unless the non-Federal requirements are “substantively the same” as the Federal requirements, including the following subjects:

- The designation, description, and classification of hazardous materials.
- The packing, repacking, handling, labeling, marking, and placarding of hazardous materials.
- The preparation, execution, and use of shipping documents related to hazardous materials and requirements related to the number, contents, and placement of those documents.
- The written notification, recording, and reporting of the unintentional release in transportation of hazardous material.

¹³ 64 FR 43255 (Aug. 10, 1999).

¹⁴ 74 FR 24693 (May 22, 2009).

- The design, manufacture, fabrication, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material.

This proposed rule addresses covered subject items (1) and (2) and would preempt state, local, and tribal requirements not meeting the “substantively the same” standard. Any preemption results directly from operation of 49 U.S.C. 5125. In addition, in this instance, the preemptive effect of the proposed rule is limited to the minimum level necessary to achieve the objectives of the HMTA under which the final rule is promulgated. Therefore, the consultation and funding requirements of Executive Order 13132 do not apply.

D. Executive Order 13175

PHMSA analyzed this rulemaking in accordance with the principles and criteria contained in Executive Order 13175 (“Consultation and Coordination with Indian Tribal Governments”)¹⁵ and DOT Order 5301.1A (“Department of Transportation Tribal Consultation Policy and Procedures”). Executive Order 13175 and DOT Order 5301.1A require DOT Operating Administrations to assure meaningful and timely input from Native American tribal government representatives in developing rules that significantly or uniquely affect tribal communities by imposing “substantial direct compliance costs” or “substantial direct effects” on such communities, or the relationship and distribution of power between the Federal Government and Native American Tribes.

PHMSA assessed the impact of the rulemaking and determined that it would not significantly or uniquely affect Tribal communities or Native American Tribal governments. The changes to the hazardous materials program procedures and HMR proposed in this NPRM would have broad, national scope. PHMSA does not expect this rulemaking would significantly or uniquely affect Tribal communities, impose substantial compliance costs on Native American Tribal governments, or mandate Tribal action. And because PHMSA expects the rulemaking

¹⁵ 65 FR 67249 (Nov. 9, 2000).

would not adversely affect the safe transportation of hazardous materials generally, PHMSA does not expect it would entail disproportionately high adverse risks for tribal communities. For these reasons, the funding and consultation requirements of Executive Order 13175 and DOT Order 5301.1A apply. However, PHMSA solicits comment from Native American tribal governments and communities on potential impacts of the proposed rulemaking.

E. Regulatory Flexibility Act and Executive Order 13272

The Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*) requires agencies to consider whether a rulemaking would have a “significant economic impact on a substantial number of small entities” to include small businesses; not-for-profit organizations that are independently owned and operated and are not dominant in their fields; and governmental jurisdictions with populations under 50,000. The Regulatory Flexibility Act directs agencies to establish exceptions and differing compliance standards for small businesses, where possible to do so and still meet the objectives of applicable regulatory statutes. Executive Order 13272 (“Proper Consideration of Small Entities in Agency Rulemaking”)¹⁶ requires agencies to establish procedures and policies to promote compliance with the Regulatory Flexibility Act and to “thoroughly review draft rules to assess and take appropriate account of the potential impact” of the rules on small businesses, governmental jurisdictions, and small organizations. The DOT posts its implementing guidance on a dedicated webpage.¹⁷

This proposed rule has been developed in accordance with Executive Order 13272 and DOT’s procedures and policies to promote compliance with the Regulatory Flexibility Act to ensure that potential impacts on small entities are considered properly. As explained above, this proposed rule facilitates the transportation of hazardous materials by streamlining the regulatory requirements for energetics manufacturers and shippers while maintaining the current level of

¹⁶ 67 FR 53461 (Aug. 16, 2002).

¹⁷ DOT, “Rulemaking Requirements Related to Small Entities,” <https://www.transportation.gov/regulations/rulemaking-requirements-concerning-small-entities> (last accessed June 17, 2021).

safety for transportation of these items. Specifically, it proposes to amend the classification and approval process of certain low-hazard Class 1 explosive materials (i.e., fireworks) and clarify classification eligibility for ammunition with inert projectile that has a pyrotechnic coating (i.e., tracers). Finally, this rulemaking proposes to require use of the PHMSA portal, an online application, as the sole method to submit explosives approval applications.

Therefore, PHMSA expects that these amendments will not, if adopted, have a significant economic impact on a substantial number of small entities. However, PHMSA solicits comments on the anticipated economic impacts to small entities.

F. Paperwork Reduction Act

Under the Paperwork Reduction Act of 1995 (44 U.S.C. 3501 et seq.), no person is required to respond to any information collection unless it has been approved by OMB and displays a valid OMB control number. Pursuant to 44 U.S.C. 3506(c)(2)(B) and 5 CFR 1320.8(d), PHMSA must provide interested members of the public and affected agencies an opportunity to comment on information and recordkeeping requests.

PHMSA has analyzed this NPRM in accordance with the Paperwork Reduction Act. PHMSA currently accounts for information collection and recordkeeping burdens under OMB Control Number 2137-0057 “Approvals for Hazardous Materials.” In this NPRM, PHMSA proposes to revise § 173.64 applicable to low hazard fireworks that may impact the burden accounted for in OMB Control Number 2137-0057. The proposed addition in § 173.64 would require manufacturers to provide information in association with pursuing allowance for the self-certification of certain ground and novelty device fireworks as low hazard fireworks for purposes of transportation. PHMSA analyzed this proposal and expects the impact to be negligible as the information is the same information currently required by the HMR, just in a different format.

PHMSA specifically requests comments on the information collection and recordkeeping burdens associated with developing, implementing, and maintaining these proposed requirements. Address written comments to the DOT Docket Operations Office as identified in

the **ADDRESSES** section of this rulemaking. Comments regarding information collection burdens must be received prior to the close of the comment period identified in the **DATES** section of this rulemaking. In addition, you may submit comments specifically related to the information collection burden to the PHMSA Desk Officer, Office of Management and Budget, at fax number 202-395-674. Requests for a copy of this information collection should be directed to Steven Andrews, Standards and Rulemaking Division (PHH-10), Pipeline and Hazardous Materials Safety Administration, 1200 New Jersey Avenue S.E., Washington, D.C. 20590-0001. If these proposed requirements are adopted in a final rule, PHMSA will submit the revised information collection and recordkeeping requirements to OMB for approval.

G. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act of 1995 (UMRA; 2 U.S.C. 1501 *et seq.*) requires agencies to assess the effects of Federal regulatory actions on State, local, and Tribal Governments, and the private sector. For any NPRM or final rule that includes a Federal mandate that may result in the expenditure by State, local, or Tribal Governments, or by the private sector of \$100 million or more in 1996 dollars in any given year, the agency must prepare, amongst other things, a written statement that qualitatively and quantitatively assesses the costs and benefits of the Federal mandate.

As explained in the PRIA, available for review in the docket, this proposed rule does not impose unfunded mandates under the UMRA. As explained in the PRIA, it is not expected to result in costs of \$100 million or more in 1996 dollars to either State, local, or Tribal Governments, or to the private sector in any one year. Therefore, the analytical requirements of UMRA do not apply.

H. Draft Environmental Assessment

The National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321-4335),¹⁸ requires Federal agencies to consider the environmental impacts of their actions in the

¹⁸ Also at 40 CFR parts 1501 to 1508.

decision-making process. The purpose and function of NEPA is satisfied if Federal agencies have considered relevant environmental information, and the public has been informed regarding the decision-making process. Agencies must prepare an environmental assessment (EA) for a proposed action that is not likely to have significant effects or when significance is unknown, and prepare a FONSI if, based on the EA, the agency determines not to prepare an EIS because the proposed action will not have significant effects. In accordance with these requirements, an agency's EA must discuss: 1) the need for the action; 2) the alternatives considered; 3) the environmental impacts of the proposed action and alternatives; and 4) a listing of the agencies and persons consulted before providing evidence for determining a FONSI. The draft EA (DEA) and proposed FONSI for the proposed action in this rulemaking are as follows. This DEA incorporates by reference the analysis included in the preamble text above.

1. Need for the Action

The changes in the explosives approval process, especially for classification and approval of low hazard fireworks, are needed to improve efficiency and provide regulatory clarification for offerors and carriers.

2. Alternatives Considered

No Action Alternative

Under the no action alternative, the current process for acquiring explosives approvals by hardcopy or e-mail submission of application documents would continue. Additionally, stakeholders would continue to rely on previously issued guidance for classification and exception from regulation for certain low hazards fireworks. Finally, it would remain ambiguous whether tracer ammunition is eligible for self-classification as a Division 1.4S explosive (i.e., the small arms cartridges exceptions).

Proposed Action Alternative—Explosives Approval Program and Exceptions for Divisions 1.3 and 1.4 Consumer Fireworks

Under this alternative, PHMSA would implement the proposed amendments of this rule as fully addressed in the preamble and regulatory text sections of this NPRM. However, a concise summary of the proposed amendments include the following:

- 1) Establishing exceptions for ground and novelty firework devices.
- 2) Authorizing the self-classification of tracer ammunition.
- 3) Requiring electronic submittal of explosives approval applications to include reference to the PHMSA portal, and to authorize electronic submittal for all required approvals.

3. Environmental Impacts of Proposed Action and Alternatives

No Action Alternative

PHMSA expects the no action alternative to have no new impact on the environment as the status quo would remain in place. Explosives approval applications, including those for fireworks, would continue to be processed using all authorized filing formats currently in place, and manufacturers would continue to work within the scope of guidance issued by PHMSA for exceptions from regulation for low hazard fireworks. Additionally, classification of tracer ammunition as a Division 1.4S would remain the same but clarity on whether a manufacturer could self-classify would remain uncoded.

Proposed Action Alternative—Explosives Approval Program and Exceptions for Divisions 1.3 and 1.4 Consumer Fireworks

Under this alternative, PHMSA would implement the proposed amendments of this rule as fully addressed in the preamble and regulatory text sections of this NPRM. The proposed amended regulatory text would allow for a streamlining of procedural requirements for the transportation of low hazard ground and novelty firework devices. Specifically, PHMSA would allow an automated process within the PHMSA portal for self-certification, review of the information provided, and issuance of a certificate with a unique identification (i.e., FW number). This process would eliminate the need for firsthand review by PHMSA personnel when compliance is certified by the applicant. The devices would still be subject to the same

substantive testing and materials requirements, including construction, formulation, and packaging. Similarly, this NPRM proposes to clarify and codify existing guidance that self-certification is authorized for inert projectile cartridges coated with tracer composition and may be self-classified as a Division 1.4S material provided all other criteria outlined in § 173.56(h) are met. Although the proposal would reduce the hours PHMSA personnel spend reviewing documents, the automated process is designed to similarly ensure compliance. Furthermore, PHMSA will maintain oversight of the automated process for low hazard fireworks through PHMSA's QA/QC review program.

PHMSA also notes the difficulty in quantifying any environmental impact of requiring electronic processing of information; codifying approval and exception requirements for low hazard fireworks; and clarifying authorized self-classification of tracer ammunition. The changes proposed in this notice do not impact whether or not explosives are manufactured and transported, but rather how explosives approval applications are processed and how certain explosives may be classified. The process is already occurring and the changes proposed would primarily be about transitioning to an electronic format. For the above reasons, PHMSA expects the proposed action alternative to have no impact on the human environment, including public safety.

4. Agencies and Persons Consulted

PHMSA coordinated with the Federal Aviation Administration, the Federal Motor Carrier Safety Administration, the Federal Railroad Administration, and the U.S. Coast Guard in the development of this proposed rule.

5. Environmental Justice

Executive Order 12898 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations")¹⁹ directs Federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of Federal

¹⁹ 59 FR 7629 (Feb. 16, 1994).

actions on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. DOT Order 5610.2C (“Department of Transportation Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”) establishes departmental procedures for effectuating Executive Order 12898 promoting the principles of environmental justice through full consideration of environmental justice principles throughout planning and decision-making processes in the development of programs, policies, and activities—including PHMSA rulemaking.

PHMSA has evaluated this proposed rule under Executive Order 12898 and DOT Order 5610.2C and preliminarily determined that it would not cause disproportionately high and adverse human health and environmental effects on minority and low-income populations. The rulemaking is neither directed toward a particular population, region, or community, nor is it expected to adversely impact any particular population, region, or community. And insofar as the rulemaking would not adversely affect the safe transportation of hazardous materials generally, the proposed revisions would not entail disproportionately high adverse risks for minority and low-income populations. This preliminary determination is consistent with the recent Executive Order 14096 (“Revitalizing Our Nation’s Commitment to Environmental Justice for All”),²⁰ by achieving several goals, including continuing to deepen the Administration’s whole of government approach to environmental justice and to better protect overburdened communities from pollution and environmental harms.

6. Proposed Finding of No Significant Impact

As discussed in this DEA as well as Section II of the notice, the proposed actions of this rulemaking would introduce efficiencies to the explosives approval process and the way certain low hazard Class 1 explosive materials are authorized for transportation, and provide clarity on whether tracer ammunition for small arms cartridges may be classed as Division 1.4S material without the explosives approval process. The proposed actions would not cause environmental

²⁰ 88 FR 25251 (Apr. 26, 2023).

impact because the changes proposed are procedural and not substantive, and no reduction in compliance with HMR requirements are anticipated. There may be a negligible impact by changing from paper documents to reliance on electronic systems. Nothing is different between the approval and transport of explosives and low hazard fireworks under the current system and under the proposed system other than how applications are processed. Similarly, nothing is different between the current classification of tracer ammunition and the proposed action except how classification is determined (i.e., either by formalized approval classification or by self-classification). Therefore, PHMSA proposes that, if adopted, this rulemaking will result in no significant impact to the human environment. PHMSA welcomes feedback related to environmental impacts that may result if the proposed requirements are adopted, as well possible alternatives and their environmental impacts.

I. Privacy Act

In accordance with 5 U.S.C. 553(c), DOT solicits comments from the public to better inform any amendments to the hazardous materials program procedures and the HMR considered in this rulemaking. DOT posts these comments, without edit, including any personal information the commenter provides, to <https://www.regulations.gov>, as described in the system of records notice (DOT/ALL-14 FDMS). DOT's complete Privacy Act Statement is in the **Federal Register**,²¹ or on DOT's website at <https://www.dot.gov/privacy>.

J. Executive Order 13609 and International Trade Analysis

Executive Order 13609 ("Promoting International Regulatory Cooperation")²² requires that agencies consider whether the impacts associated with significant variations between domestic and international regulatory approaches are unnecessary or may impair the ability of American business to export and compete internationally. In meeting shared challenges involving health, safety, labor, security, environmental, and other issues, international regulatory

²¹ 65 FR 19477 (Apr. 11, 2000).

²² 77 FR 26413 (May 4, 2012).

cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation. International regulatory cooperation can also reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

Similarly, the Trade Agreements Act of 1979 (Pub. L. 96-39), as amended by the Uruguay Round Agreements Act (Pub. L. 103-465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. Pursuant to the Trade Agreements Act, the establishment of standards is not considered an unnecessary obstacle to the foreign commerce of the United States, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

In developing requirements to allow manufacturers to self-certify certain fireworks as meeting criteria for transportation as low hazard fireworks in place of acquiring an explosives approval for transportation, PHMSA has made assurances that the process facilitates international transport. PHMSA realizes the absence of an approval and the associated approval number provides for domestic exception from regulation of certain low hazard novelty fireworks, and it has assessed the effects of the proposed rule to ensure it does not cause unnecessary obstacles to foreign trade. In fact, the proposed rule is expected to facilitate international trade by harmonizing U.S. and international requirements for the transportation of hazardous materials. The rule is expected to reduce regulatory burdens and minimize delays arising from having to comply with divergent regulatory requirements. This rulemaking is consistent with Executive Order 13609 and PHMSA's obligations under the Trade Agreements Act, as amended.

K. National Technology Transfer and Advancement Act

The National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) directs Federal agencies to use voluntary consensus standards in their regulatory activities unless

doing so would be inconsistent with applicable law or otherwise impractical. Voluntary consensus standards are technical standards (e.g., specification of materials, test methods, or performance requirements) developed or adopted by voluntary consensus standard bodies. This NPRM involves voluntary consensus standards, which are discussed in Section I of this NPRM.

L. Severability

The purpose of this proposed rule is to operate holistically in addressing a panoply of issues related to safety hazards; the classification and approval process for certain low-hazard fireworks; permitting small arms cartridges to include tracer ammunition; and allowing for voluntary termination of an explosive approval by the approval holder. However, PHMSA recognizes that certain provisions focus on unique topics. Therefore, PHMSA preliminarily finds that the various provisions of this proposed rule are severable and able to function independently if severed from each other. Thus, in the event a court were to invalidate one or more of this proposed rule's unique provisions, the remaining provisions should stand and continue in effect. PHMSA seeks comment on which portions of this proposed rule should or should not be severable.

M. Cybersecurity and Executive Order 14028

Executive Order 14028 ("Improving the Nation's Cybersecurity")²³ expressed the Biden-Harris Administration policy that "the prevention, detection, assessment, and remediation of cyber incidents is a top priority and essential to national and economic security." Executive Order 14028 directed the Federal Government to improve its efforts to identify, deter, and respond to "persistent and increasingly sophisticated malicious cyber campaigns." PHMSA has considered the effects of this NPRM and determined its regulatory amendments will not materially affect the cybersecurity risk profile for the classification and approval process for certain low-hazard fireworks, for small arms cartridges to include tracer ammunition, and the transportation of hazardous materials.

²³ 86 FR 26633 (May 17, 2021).

List of Subjects

49 CFR Part 107

Administrative practice and procedure, Hazardous materials transportation, Packaging and containers, Penalties, Reporting and recordkeeping requirements.

49 CFR Part 171

Exports, Hazardous materials transportation, Hazardous waste, Imports, Incorporation by reference, Reporting and recordkeeping requirements.

49 CFR Part 173

Hazardous materials transportation, Incorporation by reference, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA proposes to amend 49 CFR chapter I as follows:

PART 107—HAZARDOUS MATERIALS PROGRAM PROCEDURES

1. The authority citation for part 107 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; Pub. L. 101–410 Section 4; Pub. L. 104–121 Sections 212–213; Pub. L. 104–134 Section 31001; Pub. L. 114–74 Section 701 (28 U.S.C. 2461 note); 49 CFR 1.81 and 1.97; 33 U.S.C. 1321.

2. In § 107.705, revise paragraph (a)(1) to read as follows:

§ 107.705 Registrations, reports, and applications for approval.

(a) * * *

(1) Filings. (i) Submission methods. The registration, report, or application may be filed with the Associate Administrator for Hazardous Materials Safety, Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, East Building, 1200 New Jersey Avenue, SE., Washington, DC 20590-0001. Applications may be filed using the PHMSA portal at: <https://portal.phmsa.dot.gov/> or alternatively, may be filed with any attached supporting documentation in an appropriate format by facsimile (fax) to: (202) 366-3753 or (202) 366-3308, or by electronic mail (email) to: approvals@dot.gov.

(ii) Explosive approval applications. Filing of explosives approval and fireworks approval applications as well as certifications of low hazard fireworks must be submitted, and will only be accepted, using the PHMSA portal.

* * * * *

3. In § 107.713, revise paragraph (c) introductory text and add paragraph (e) to read as follows:

§ 107.713 Approval modification, suspension or termination.

* * * * *

(c) Except as provided in paragraphs (d) and (e) of this section, before an approval is modified, suspended, or terminated, the Associate Administrator notifies the holder in writing of the proposed action and the reasons for it, and provides an opportunity to show cause why the proposed action should not be taken.

* * * * *

(e) The Associate Administrator may terminate an approval at the request of the approval holder based on the holder's determination that it is no longer needed. The approval holder must submit the request in writing to the Associate Administrator using the PHMSA portal at: <https://portal.phmsa.dot.gov/>.

PART 171—GENERAL INFORMATION, REGULATIONS, AND DEFINITIONS

4. The authority citation for part 171 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; Pub. L. 101–410 section 4; Pub. L. 104–134, section 31001; Pub. L. 114–74 section 701 (28 U.S.C. 2461 note); 49 CFR 1.81 and 1.97.

5. In § 171.8, add a definition for “FW number” in appropriate alphabetical sequence to read as follows:

§ 171.8 Definitions and abbreviations.

* * * * *

FW number means a number preceded by the prefix “FW”, assigned by PHMSA to a Division 1.4G Consumer firework device that has been certified under the provisions of § 173.64 of this subchapter.

* * * * *

PART 173--SHIPPERS--GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

6. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101–5128, 44701; 49 CFR 1.81, 1.96 and 1.97.

7. In § 173.56, revise paragraph (h)(3) to read as follows:

§ 173.56 New explosives—definition and procedures for classification and approval.

* * * * *

(h) * * *

(3) Ammunition (including tracer ammunition) with inert projectile, or blank ammunition; and

* * * * *

8. In § 173.59, add a definition for “Low hazard firework” in alphabetical order to read as follows:

§ 173.59 Description of terms for explosives.

* * * * *

Low hazard firework. As listed in § 173.64 of this subchapter, are pyrotechnic articles of certain chemical composition, design, and packaging that are not designed to leave ground level, contain no aerial components, present a low explosive hazard during transportation, and comply with any limits and requirements found therein. Low hazard fireworks include ground and novelty devices.

* * * * *

9. Revise § 173.64 to read as follows:

§ 173.64 Exceptions for Division 1.3 and 1.4 fireworks.

(a) *Classification and approval.* Notwithstanding the requirements of § 173.56(b), Division 1.3 and 1.4 fireworks may be classed and approved by the Associate Administrator without prior examination and offered for transportation if the conditions of this paragraph (a) are met (see § 173.65 for an alternate method to approve Division 1.4G consumer fireworks using a DOT-approved Fireworks Certification Agency):

(1) Fireworks must be manufactured in accordance with the applicable requirements in APA 87-1A, 87-1B, and 87-1C (IBR, see § 171.7 of this subchapter).

(2) The firework device must pass a thermal stability test conducted by a third-party laboratory or the manufacturer. The test must be performed by maintaining the device, or a representative prototype of a large device such as a display shell, at a temperature of 75 °C (167 °F) for 48 consecutive hours. When a device contains more than one component, those components that could be in physical contact with each other in the finished device must be placed in contact with each other during the thermal stability test.

(3) The manufacturer applies in writing to the Associate Administrator following the applicable requirements in APA 87-1A, 87-1B, and 87-1C and is notified in writing by the Associate Administrator that the fireworks have been classed, approved, and assigned an EX number. Each application must be complete and include all relevant background data and copies of all applicable drawings, test results, and any other pertinent information on each device for which approval is being requested. The manufacturer must sign the application and certify that the device for which approval is requested conforms to the appropriate APA Standard, that the descriptions and technical information contained in the application are complete and accurate, and, with respect to APA 87-1A, that no duplicate application has been submitted to a fireworks certification agency. If the application is denied, the manufacturer will be notified in writing of the reasons for the denial. The Associate Administrator may require that the fireworks be examined by an agency listed in § 173.56(b)(1) of this part.

(b) *Additional exceptions for low hazard Division 1.4 consumer fireworks.* Low hazard fireworks are pyrotechnic articles of certain chemical composition, design, and packaging such that they present a low explosive hazard during transportation. Low hazard ground device fireworks listed in the table to paragraph (b)(2) of this section and meeting the specified conditions and limitations are eligible for self-classification and transport as UN0336, Fireworks, Division 1.4G. Further, certain low hazard novelty fireworks listed in the table to paragraph (b)(3) of this section meeting the specified conditions and limitations may be excepted from the requirements of this subchapter as a Class 1 explosive material. Low hazard fireworks are not subject to the explosives approval requirements of § 173.56 or the DOT-approved Fireworks Certification Agency requirements of § 173.65.

(1) *General requirements.* No person may manufacture and offer for transport a low hazard firework unless compliance with requirements of this paragraph (b) has been certified with the Associate Administrator. No person may accept for transport a low hazard firework that has not been certified as specified in this section. If the person certifying compliance is not a resident of the United States, the person must designate an agent for service in accordance with § 105.40 of this chapter. Additionally, low hazard fireworks:

(i) Must successfully pass a thermal stability test as specified in paragraph (a)(2) of this section;

(ii) May not be transported as a component part for another firework or explosive; and

(iii) Must be marked with an FW number issued by the Associate Administrator. If the firework is too small for the marking, the outer package of the fireworks must be marked with the FW number.

(2) *Requirements specific to ground firework devices.* (i) Ground devices must use chemicals in conformance with the permitted and restricted chemical list in APA 87-1A, Appendix 1.

(ii) When permitted, all reports are limited to 50 mg of composition per report.

(iii) Ground devices must be initiated by a fuse; however, a fuse is not required for the following types: flitter sparklers, wire or dipped sparklers, fountain (nitrocellulose), and snakes (glow worms).

(iv) Authorized ground devices, and their descriptions, specifications, and special conditions for transport are set forth as follows:

Table 1 to paragraph (b)(2): Authorized Ground Devices and Specifications

Type	Description	Specification	Special Conditions
Chaser	Consists of a paper or cardboard tube, which vents out its fuse hole.	20 grams total of chemical composition, with multiple reports permitted (each report limited to 50 milligrams).	None.
Crackling Ball	Consists of a spherical ball that contains small granules of chemical composition that upon ignition produce sparks and/or a crackling effect.	20 total grams of chemical composition, with no reports permitted.	Inner packaging cannot exceed 72 grams of composition.
Crackling Strip	Consists of small granules of chemical composition adhered to and encased in a paper or cardboard wrapping that upon ignition produce sparks and/or a crackling effect.	20 total grams of chemical composition, with no reports permitted.	Inner packaging cannot exceed 72 grams of composition.
Crackling Tube	Consists of a tube that contains small granules of chemical composition that upon ignition produce sparks and/or a crackling effect.	20 total grams of chemical composition, with no reports permitted.	Inner packaging cannot exceed 72 grams of composition.
Firecracker	Consists of a small paper-wrapped or cardboard tube that produces a single report.	50 milligrams of chemical composition per firecracker.	Multiple firecrackers can be fused together to form a string. There is no limit on number of firecrackers in a string.
Flasher / Strobe	Consists of a small paper-wrapped or cardboard tube that produces a crackling/flashing/strobe light effect.	5 total grams of chemical composition, with no reports permitted	Inner packaging cannot exceed 60 grams of composition.
Flitter Sparkler	Consists of a paper or cardboard tube attached to a stick or wire. Upon ignition, the device produces a shower of sparks, a colored flame, and/or a crackling effect.	25 total grams of chemical composition, with no reports permitted. Formulations containing chlorates are limited to 4 grams with no more than 15 percent of the formulation being chlorates.	None.
Fountain (Cone)	Consists of a paper or cardboard tube that upon ignition produces a shower consisting of any combination of colored sparks, color flame, crackle, smoke, whistle, or micro star effects.	50 total grams of chemical composition, with no reports permitted.	None.

Fountain (Cylindrical)	Consists of a paper or cardboard tube that upon ignition produces a shower consisting of any combination of colored sparks, color flame, crackle, smoke, whistle, or micro star effects.	100 total grams of chemical composition, with no reports permitted.	None.
Fountain (Nitrocellulose)	Consists of a cone or tube device that produces a shower of small sparks, color, and flame as its primary effect using nitrocellulose as the major chemical component.	15 total grams of chemical composition, with no reports permitted.	None.
Ground Spinner	Consists of a paper or cardboard tube that upon ignition emits a shower of sparks that vent out of an orifice causing the device to spin rapidly on the ground.	20 total grams of chemical composition, with reports permitted (each report limited to 50 milligrams).	Multiple ground spinners can be fused together to form a string. Strings are limited to 20 grams of total composition.
Illuminating Torch	Consists of a paper or cardboard tube that upon ignition, emits a colored flame with or without crackles or sparks.	100 total grams of chemical composition, with no reports permitted.	None.
Smoke	Consists of a paper or cardboard tube that upon ignition emits smoke as the primary effect.	100 total grams of chemical composition. All mixtures containing a chlorate must contain an equal amount or greater amount of a carbonate or bicarbonate (e.g., calcium carbonate, sodium bicarbonate).	Multiple smoke devices can be fused together to form a string. Strings are limited to 100 grams of total composition.
Snake	Consists of pressed pellet of pyrotechnic composition that upon ignition produce a snake-like ash that expands in length as the composition is consumed.	20 total grams of chemical composition, with no reports. Only formulations of nitrated asphalt, asphaltum, bitumen, pitch, and/or tar with an oxidizer (with or without a binder) are permitted.	None
Specialty Device	Consists of a paper or cardboard tube(s), e.g., in the shape of an animal or a small vehicle, that produces multiple effects.	20 total grams of chemical composition, with reports permitted (each report limited to 50 milligrams). No tube can contain more than 2 grams of composition; tubes cannot contain aerial components or internal shells	None.
Wheel	Consists of a paper or cardboard tube(s) placed on the ground or attached to a post, by means of a nail, spike or string. Upon ignition the wheel rotates, producing a shower of sparks, color, crackling, flame, or whistle effects.	200 total grams of chemical composition, with no reports. No tube can contain more than 60 total grams of composition, which includes a 20 gram propellant limit per tube. Tubes cannot contain aerial components. Handles are not permitted.	None.
Wire Sparkler or Dipped Stick	Consists of a metal wire or wood dowel coated with a chemical composition. Upon ignition, the device produces a shower of sparks, a colored flame, and/or a crackling effect.	100 total grams of chemical composition, with no reports permitted. Formulations containing chlorates are limited to 4 grams with no more than 15 percent of the formulations being chlorates.	Composition weight per inner packaging cannot exceed 120 grams.

(3) *Requirements specific to novelty firework devices.* Except for transportation by air, novelty fireworks conforming to the requirements of this paragraph (b)(3) are not subject to this subchapter. For air transportation, novelty devices must be transported as required by this subchapter for “UN3178, Flammable solid, inorganic, n.o.s. (Novelties), 4.1, PG II”.

(i) Novelty devices must use chemicals in conformance with the permitted and restricted chemical list in APA Standard 87-1A, Appendix 1 (IBR, see § 171.7 of this subchapter).

(ii) Inner packagings of novelty devices must be packaged in strong outer packagings. The packages must conform to the requirements of § 173.24. The maximum gross weight of a completed package may not exceed 30 kg (66 pounds).

(iii) Each outer package, and overpack if used, containing novelty devices must be plainly marked “NOVELTIES, IN CONFORMANCE WITH § 173.64, NOT REGULATED, EXCEPT WHEN TRANSPORTED BY AIR”.

(iv) Authorized novelty devices, and their descriptions, specifications, and special conditions for transport are set forth as follows:

Table 2 to paragraph (b)(3): Authorized Novelty Devices and Specifications

Type	Description	Specifications	Special Conditions
Booby Trap/Pull Apart	Is a device that is actuated by means of friction. Pulling a string or strings apart activate the device producing a noise effect.	0.016 total grams of chemical composition, which is limited to barium, potassium, and/or sodium chlorate with red phosphorus.	Inner packages must not contain more than 12 devices.
Novelty Flitter Sparkler	Consists of a paper or cardboard tube attached to a stick or wire. Upon ignition, the device produces a shower of sparks, a colored flame, and/or a crackling effect.	5 total grams of chemical composition, with no reports permitted. Formulations containing chlorates are limited to 4 grams with no more than 15 percent of the formulation being chlorates.	
Party Poppers	Is a device that is actuated by means of friction. Pulling a string or trigger activates the device producing a noise effect and releasing paper streamers or confetti. Common examples resemble champagne bottles and toy pistols.	0.016 total grams of chemical composition, which is limited to barium, potassium, and/or sodium chlorate with red phosphorus.	Inner packages must not contain more than 72 devices.
Novelty Snakes and Glow-Worms	Consists of pressed pellet of pyrotechnic composition that upon ignition, produce a snake-like ash that	2 total grams of chemical composition. Only formulations of nitrated asphalt, asphaltum, bitumen, pitch, and/or tar with	Inner packaging must not contain more than 25 devices.

Type	Description	Specifications	Special Conditions
	expands in length as the composition is consumed.	an oxidizer (with or without a binder) are permitted.	
Snappers	Consists of small, paper-wrapped items. When dropped, the device activates, producing a noise effect.	0.001 total grams of silver fulminate coated on small bits of sand or gravel.	Inner packages must not contain more than 50 devices with sawdust or other impact absorbing materials
Novelty Wire Sparkler or Novelty Dipped Stick	Consists of a metal wire or wood dowel coated with a chemical composition. Upon ignition, the device produces a shower of sparks, a colored flame, and/or a crackling effect.	25 total grams of chemical composition, with no reports permitted. Formulations containing perchlorates are limited to 5 grams. Formulations containing chlorates are limited to 4 grams with no more than 15 percent of the formulations being chlorates.	Inner packages must not contain more than 8 devices.
Novelty Smoke Device	Consists of a paper or cardboard tube that upon ignition, emits smoke as the only effect.	5 total grams of chemical composition, with no reports permitted. All mixtures containing a chlorate must contain an equal amount or greater amount of a carbonate or bicarbonate (e.g., calcium carbonate, sodium bicarbonate).	Inner packages must not contain more than 72 devices.

(4) *Recordkeeping requirements.* In addition to the certification of each low hazard firework in accordance with this section, the manufacturer must maintain a record of the documents demonstrating compliance with this section. Each record must clearly provide the FW number assigned to the device certified. The record must contain the following information at minimum: FW certification document, category of device, drawing, chemical composition list, gram quantities, and if applicable, U.S. agent of service information. The record must be accessible at or through the principal place of business for five years after the device is manufactured and must be made available, upon request, to an authorized official of a Federal, State, or local government agency at a reasonable time and location, not to exceed five (5) business days.

Issued in Washington, DC on November 17, 2023, under authority delegated in 49 CFR 1.97.

William S. Schoonover,
Associate Administrator for Hazardous Materials Safety,
Pipeline and Hazardous Materials Safety Administration.

